

Amateur Radio Newsline report number 1713 with a release date of Friday, June 11, 2010 to follow in 5-4-3-2-1.

The following is a Q-S-T. The International Telecommunications Union will investigate interference from BPL when it meets in Geneva, the FCC denies a petition to change the basis and purpose of amateur radio, a massive rewrite of the Part 95 rules governing GMRS and CB radio is proposed and a New York State ham gets ready to fight a citation he received for operating mobile with an HT. Find out the details on Amateur Radio Newsline(tm) report number 1713 coming your way right now.

(Billboard Cart Here)

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THE BPL WAR: ITU TO STUDY BPL INTERFERENCE

The International Telecommunications Union's Working Parties 1A and 1B will meet in Geneva, Switzerland. between June 21 and 28. A major item of discussion will be protection of radio services from interference caused by Broadband over Powerline or BPL. Amateur Radio Newsline's Bruce Tennant, K6PZW, has a preview of what to expect:

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The International Amateur Radio Union or IARU has already contributed to a report titled "The Impact of Powerline Telecommunication Systems on Radiocommunication Systems Operating in the Low Frequency, Medium Frequency, High Frequency and VHF Bands Below 80 MHz." In it, the acceptable criteria for degradation of the High Frequency radio noise floor caused by BPL is defined as being one half of one db. Now, this group will concentrate on the protection of radio services from the effects of BPL in range from 80 to 200MHz.

The IARU delegate to the SG1 and its working parties is Peter Chadwick G3RZP. He says that three input contributions have been prepared for this meeting. The first of these is a report on the effects of intermodulation in power supplies causing the amateur band frequency notches in the BPL spectrum to be degraded. This report has been prepared from the work by Richard Marshall, G3SBA. It go so far as to point out the difficulty such effects could have on the BPL system itself.

A further input establishes the protection criteria for amateur stations operating in the 2 meter band. Ian White, GM3SEK contributed to it. It finds that the amateur and amateur satellite services require protection such that BPL interference does not exceed the level of 4 point 5dB per volt per meter in the main lobe of the antenna. This, with a separation between antenna and the PLT installation being at least 10 meters.

The third input is of a more general nature. It shows that there are a number of non-amateur services that could suffer interference from BPL or its harmonics. These include alarms for the elderly, pagers, medical implant telemetry, as well as broadcasting. And when accumulation of radiation from BPL and other sources is added together, aircraft navigation and communications could be negatively impacted as well.

For the Amateur Radio Newsline, I'm Bruce Tennant, K6PZW, in Los Angeles.

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Summing it all up, the reports conclude that when the differences in range between BPL devices versus the other spectrum users are taken into account, the acceptable levels of radiation to protect the amateur service users are of the same order as those needed to protect these other services. (RSGB, Southgate, others)

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THE BPL WAR: ACCESS BPL APPEARS DEAD DOWN UNDER

Meantime, wide area Access-BPL will soon likely be extinct in Australia. The latest appraisal of Broadband over Powerlines that has been cautiously described as appearing to have all but vanished from the Australian telecommunications landscape.

That's the view of Wireless Institute of Australia BPL Working Group Chairman, Phil Wait VK2DKN, who also observes that the use of Access-BPL in the United States is diminishing rapidly, with the latest BPL shut-down occurring in the City of Manassas, Virginia. And while there have been eight Access BPL trials in Australia since 2004 the last of these appears to have terminated back in 2007. (WIA)

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THE BPL WAR: IN-HOME BPL THE EMERGING MARKET

While BPL using power lines as an internet enabling technology has apparently failed, In-House BPL using the internal wiring or a home or building is now the major market for BPL equipment manufacturers.

In the United Kingdom more than 800,000 pairs of in-home BPL modems have been installed by British Telecom. This has brought continuing interference complaints to the UK regulator Ofcom which according to VK2DKN appears to be unable, or at least very reluctant to act.

To make matters worse for U-K radio amateurs, it appears that one type of In-house BPL adaptor can emit a radio frequency signal up to 370 MHz.
(VK3PC)

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THE BPL WAR: EGYPT TO EMBRACE BPL

While BPL may be on the decline in Western nations, it seems to be gaining a new foothold in the middle East. This with news that Egypt-based SABA Electric is getting into the Broadband over Powerline act.

Jim Linton, VK3PC, reports that SABA has formed a partnership with ISP LINKdotNET and has plans for easy access to the Internet through BPL.

In a media statement SABA Electric said BPL is the technology it will use to provide to provide broadband data speed up to 8 Mbps that include a number of Voice over Internet Protocol and video options. The completed system reach over 300,000 residents. (VK3PC)

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RADIO LAW: FCC DENIES PETITION TO CHANGE BASIS AND PURPOSE OF AMATEUR RADIO

The FCC has turned away a rules change request from Gordon Schlesinger, W6LBV, of San Diego, California. One that sought to partially rewrite Section 97.1 of the Amateur Service Rules.

Section 97.1 deals with the very basis and purpose of ham radio. In his September 2008 filing, Schlesinger claimed that Section 97.1 is outmoded due to changes in technology and practices, and that it diverges from the practical realities of the amateur service today.

In denying Schlesinger's request the FCC stated that that the basis and purpose of the Amateur Service was not intended to reflect any particular technology or the practices of a particular time. Rather, Section 97.1 is intended to provide guidance as to the accomplishments the Commission expects of the service and to assist in international negotiations affecting the service.

In closing the FCC notes that nothing in Schlesinger's petition demonstrates that the Commission's expectations for the Amateur Service have changed or are not being met, or that the rule is in some way hampering international negotiations that affect the Amateur Service. Nor does his petition identify any reason to revisit the Commission's decision on the matter made back in 1989. At that time the FCC decided that it was in the best interest of the hobby not to change the basis and purpose of the Part 97 Amateur Service. (FCC)

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RADIO LAW: FCC ISSUES DOCKET ON REWRITE OF PART 95 RULES

The FCC is proposing a massive rewrite of its Part 95 rules. These are the regulations that govern such public available two way radio as the General Mobile Radio Service, the Family Radio Service, and 11 meter C-B to mention only a few.

WT Docket No. 10-119 was released on June 7th and is a catch all of proposed rules changes that would affect the General Mobile Radio Service the most. This, by ending its current licensing requirements and replacing these with what the FCC calls License by Rule. That's an FCC term that kind of means doing to GMRS what it essentially did on 11 meter CB a few decades ago. It would additionally mean relaxing GMRS eligibility requirements and at the same time implementing mandatory 12 point 5kilohertz channel spacing to the service. It also would also allow the transmission of Global Positioning System location information and user-generated text messages on certain GMRS channels.

As to the Family Radio Service, the FCC proposes to prohibit the authorization of radios that combine FRS with other safety-related services. In other words, an FRS radio would have to be a Family Radio Service only transceiver and it would become illegal to manufacture an FRS radio that could work with or in any service other than channels where FRS is allocated to operate. This would mean an end to a whole slew of transceivers that have multiple service capability especially those that cover both FRS and GMRS or some with FRS, GMRS and Marine channel capability.

Regarding 11 Meter CB, the FCC says it plans to evaluate various requirements regarding the Citizens Band Radio Service in order to determine whether they all are still needed. Of significance the FCC will be looking into CB'ers who work skip during band openings. It notes that amplifiers for CB stations are already illegal, but WT Docket No. 10-119 asks if the regulatory agency should consider prohibiting directional antennas for C-B operations in order to promote the services intended use for short range only communications. It also wants to know if it should consider power reductions for the CB Service and whether or not to permit the use of "hands-free" microphones.

FCC WT Docket No. 10-119 is 96 pages long including various appendices. It also carries a rather short commentary cutoff date of 30 days after publication in the Federal Register. Reply Comments will be due 45 days after publication in the Federal Register. You can download and read it yourself at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-106A1.doc (FCC)

★★

BREAK 1

From the United States of America, We are the Amateur Radio Newsline, heard on bulletin stations around the world including the W4KEV repeater serving Knoxville, Tennessee.

(5 sec pause here)

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RADIO LAW: NY HAM HANDED CELLPHONE VIOLATION FOR USING MOBILE GEAR

Amateur radio operators in upstate New York are up in arms over a traffic ticket handed to Steve Bozak, WB2IQU, while he was operating mobile in the city of Troy. And Bozak is ready to force the issue in court. Amateur Radio Newsline's Norm Seeley, KI7UP, has more:

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A 34 year veteran of the hobby, Steve Bozak, WB2IQU owns an antenna company and is well known in the upstate New York areas. But recently he was pulled over at an intersection while on his way to breakfast with fellow ham radio enthusiasts. He was then issued a ticket for talking on a cell phone while driving after Officer Mark Millington dismissed Bozak's claims that the radio was not in fact a telephone.

The section of New York's vehicle and traffic law Bozak was cited for violating is designated as 1225-c. It requires a phone to be in the immediate proximity of the driver's ear. It also defines the types of communication devices it applies to as ones interconnected to a public switched telephone network provided by a commercial mobile radio service.

But Bozak was not using a cellphone. He was using a small Kenwood H-T that is in no way even remotely similar to a cellphone. And on its face value,

the statute does not refer to devices like a ham radio transceivers that independently transmits a signal with no telephone interconnect.

Sgt. Terry Buchanan is the Police Department's spokesman who worked traffic patrols for years. He says that he doesn't recall this issue coming up in the past. He said the department would have no comment on the matter because it is still pending in court.

Bozak is scheduled to appear on June 23rd but that date could be pushed back because Bozak has decided to force the issue. As a start, he has requested a supporting deposition from Officer Millington, who is typically assigned to Troy's public schools and rarely works traffic patrol. Bozak wants Millington to specifically detail what happened and explain how he was breaking the law.

And when the case does come to a hearing more than a dozen local Troy area hams plan on being there with him.

For the Amateur Radio Newsline, I'm Norm Seeley, KI7UP, in Scottsdale, Arizona.

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If he loses in court, Bozak faces a \$100 fine. A loss might also cause other hams in New York State to face similar citations simply for operating mobile as they have since ham radio first began. (troyrecord.com and various other published reports)

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ENFORCEMENT: HAM CHARGED IN FALSE THREAT REPORT

A Connecticut ham has been arrested in connection with incident that occurred at Walmart in Norwich this past January. The May 28th issue of the Norwich Bulletin reports that Keith J. Mutch, of Norwich has been charged with second-degree Breach of Peace, first-degree reckless endangerment and falsely reporting an incident in the first degree. According to the FCC database, Mutch holds the call KB1RBI.

By way of background, back on January 26th Norwich police responded to a report of a man in front of the local Walmart who was armed with a shotgun and was threatening to shoot people. On their arrival it was determined the report was false and no one was injured.

Initial investigation by police revealed that store security personnel had heard the report of the man with the shotgun over their two way radio system, however none of the personnel had made the transmission. A police investigation concluded that Mutch had used a portable ham radio set to make the transmission. (Norwich Bulletin)

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ENFORCEMENT: AUSTRALIA REGULATOR REVOKES HAM LICENSE

The Australian Communications and Media Authority better known as the ACMA

has canceled the amateur radio station license of an unnamed ham following an investigation that uncovered continuing breaches of that nation's Amateur service by the licensee. In this case, the violations included causing interference to other stations, failing to use a call sign and transmitting an un-modulated carrier.

The ACMA made the decision to cancel the amateur license when other compliance and enforcement measures had failed. The regulatory agency says in its reporting on the matter that every effort had been made to assist, encourage and educate the licensee to understand the importance of compliance with license conditions. Despite repeated warnings to the licensee, the ACMA found that non-compliance continued over an extended period of time.

Under the Australian Radiocommunications Act of 1992, the ACMA can suspend or cancel an amateur license if the holder contravenes a condition of the license. In the case of the recent cancellation, crucial information was provided by other radio amateurs that alerted the ACMA to the ongoing non-compliance and assisted the investigation. Under Australian privacy laws the name of the ham who had his license revoked was not revealed.
(WIA)

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HAM RADIO SAFETY: DX OPERATION CANCELLED AFTER BURGLARY

W6ZL, has cancelled his current A35KL operation from Tonga. David has decided to leave Tonga on June 2nd and return to California after his guesthouse room was burglarized last weekend. He says that he may be back in Tonga for the CQWW contest, later this year. (OPDX)

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D-STAR NEWS: VK HAM DEVELOPING ALTERNATIVE TO AMBE ENCODER

While the D-Star protocol developed by the Japanese Amateur Radio League is open and freely available for use by anyone. However, the AMBEvoice encoding scheme currently used by the D-Star protocol is not. Rather it is patented by DVSI, Inc. and its licensing fee is one of the factors in the higher cost of a D-Star radio over a similar analog FM unit. But that could change if one Australian ham has his way.

Development on an open source, freely available alternative to AMBE is being spearheaded by David Rowe, VK5DGR. This open voice protocol is called Codec 2. Right now, it is in a highly experimental stage but has several advocates in open source software circles.

Rowe says that a D-Star protocol implementing Codec 2 Digital Voice would significantly drop the entrance level cost to the mode and appeal to a much wider audience. He says that once Codec2 is stable and competitive, it would offer a real, developed-by-a-ham alternative to the patented AMBE voice encoder.

You can find out more about Codec 2 at David Rowe's development site. Its in cyberspace at tinyurl.com/2362n3t (KE7HQY)

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HAMVENTION 2010: ATTENDENCE CONTINUES AN UPWARD GROWTH TREND

According to its Public Relations Director Henry Ruminski, W8HJR, the official attendance for Hamvention 2010 was 19,750. This continues the upward trend begun last year when 18,877 were counted going through the gate at the Hara Arena following the 2008 record ten year low figure of 17,253.

While this is a good positive direction it's also still a long ways from the 10 year record headcount of 28,804 set back in 2000. The all time record Hamvention attendance was in set in 1993 when 33,669 radio amateurs from around the world made their way to Dayton, Ohio for this annual ham radio right of Spring. (Hamvention Remailer, W8HJR)

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THE SOCIAL SCENE: AMSAT SPACE SYMPOSIUM IN CHICAGO IN OCTOBER

AMSAT has announced that its 2010 Space Symposium and Annual Meeting will be held on Friday, October 8 through Sunday, October 10. This years venue is the Chicago area Elk Grove Holiday Inn which is near O'Hare Airport for the event. This is the same hotel that recently has hosted the Central States VHF Conference and W9DXCC events.

AMSAT has also put out a call for papers to be presented at the Symposium. These can be on any topic of interest to the amateur satellite community. A final copy must be submitted by September 1st for inclusion in the printed proceedings. Abstracts and papers should be sent via e-mail to k9jkm (at) amsat (dot) org. (ANS)

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THE SOCIAL SCENE: INTERNATIONAL EME CONFERENCE IN DALLAS IN AUGUST

The North Texas Microwave Society will host the 14th International EME Conference in Dallas, Texas, on August 12th to the 14th. Gerald Youngblood, K5SDR, President and Chief Executive Officer of FlexRadio, will be the lunchtime speaker on Friday, August, 13 and Nobel laureate Joe Taylor, K1JT, will speak about the 432 MHz EME event at Arecibo on Saturday, August 14th. Presentations will also include a noise figure workshop hosted by Al Ward, W5LUA, Tommy Henderson, WD5AGO, and Tony Emmanuel, WA8RJF. This is the first time the conference is to be held in the US since 2004. (SARL)

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FOLLOW-UP: WA2INM - SK -- FAMILY REQUEST

Nicole Ledoux Levy, the widow of the late Larry Levy, WA2INM, has asked that we pass along the following information. In lieu of flowers, that donations in Larry Levy's name can be made to the Cornell Feline Health Center, for the William Ledoux Fund, College of Veterinary Medicine, Hungerford Hill Road, Ithica, New York, 14863.

As we reported last week, WA2INM died of a massive heart attack on Sunday

night, May 30th. In the world of electronics he was best known as the developer of sound controlled entertainment lighting and as a contributor to the design of the original I-B-M personal computer. He went on to become a world champion cat breeder with offices in New York and Paris. (ARNewsline(tm))

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BREAK 2

This is ham radio news for today's radio amateur. From the United States of America, We are the Amateur Radio Newsline with links to the world from our only official website at www.arnewsline.org and being relayed by the volunteer services of the following radio amateur:

(5 sec pause here)

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RADIO FROM SPACE: ASTROHAM CONGRATULATES WIA ON ITS 100th ANNIVERSARY

An Astronaut on board the United States Space Station has sent congratulations to the Wireless Institute of Australia on the latter's 100th anniversary. In her message beamed to the banquet celebrating the organizations centenary, Astronaut Tracy Caldwell-Dyson KF5DBF, said that the WIA and communications itself had come a long way over the past 100 years:

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KF5DBF on-orbit addressing WIA babquet. Hear her remarks by downloading this weeks MP3 newscast at www.arnewsline.org

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Astronaut Caldwell-Dyson remarks were warmly received by all of those attending the special W-I-A 100th anniversary dinner. (WIA)

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EMERGING TECHNOLOGY: NEW SMAT CELLPHONE ANTENNA FOER RUGGED TERRAIN S&R

Emergency search and rescue workers in rugged, rural areas may never lose a cell phone call again. This, thanks to a new antenna developed by Montana State University researchers in collaboration with Advanced Acoustic Concepts, Inc.

The Montana State University antenna is considered a "smart" or "adaptive array" antenna because it uses computer technology to automatically aim the message transmission beam in the right direction, chooses the most appropriate signal strength, optimize the strength of transmitted beams and adapts to the environment. The automatic control allows users to communicate in rugged terrain while on the move.

Unlike normal omnidirectional antennas, smart antennas maintain a direct signal between individuals users and cell sites. This will likely mean

fewer dropped calls and the ability to move more data, such as streaming video. You can read more about this antenna on-line at tinyurl.com/2cwad9m (Science Daily)

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EDUCATION: NASA LAUNCHES INTERACTIVE SIMULATION OF SATELLITE COMMUNICATIONS

NASA has unveiled an interactive computer simulation that allows virtual explorers of all ages to dock the space shuttle at the International Space Station, experience a virtual trip to Mars or a lunar impact. It also allows users to explore images of star formations taken by the Hubble Space Telescope.

In an effort to excite young people about space and NASA's missions, the agency has launched its online Space Communication and Navigation or SCaN simulation. The interactive simulation offers a virtual 3-D experience to visualize how data travels along various space communications paths.

The interactive Space Communication and Navigation simulation allows visitors to select spacecraft and experience a "flythrough," or a tutorial with images and descriptions of NASA's three space communication networks. The Space Network flythrough also shows how data is relayed from NASA's White Sands Test Facility to the space station via the Tracking and Data Relay Satellite System. This is a network of communication satellites and ground stations NASA uses for space communications.

Finally, in the Deep Space Network demonstration, visitors learn how NASA communicates with the Mars Exploration Rovers, Spirit and Opportunity by using the Madrid Deep Space Network antenna. This to send data to the Mars Reconnaissance Orbiter, which then relays the data to the rover.

To explore the Space Communication and Navigation network simulation, please take your web browser to the www.nasa.gov/multimedia/3d_resources/spacecomm.html (NASA)

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RADIO IN SPACE: SOLAR DYNAMICS LAB ACTIVATED

The images from cameras and sensors on recently launched Solar Dynamics Observatory satellite are a dramatic reminder of the power of the star that warms our planet.

Since the spacecraft and its instruments were officially commissioned on May 14, more than 5 million images have been transmitted back to Earth. Some show clouds of magnetized gas big enough to engulf the Earth breaking away from the outermost layer of the sun. These Coronal Mass Ejections which are usually accompanied by solar flares can last for several hours and travel through space at over 1 million kilometers per hour.

Coronal Mass Ejection's usually take about three days reach Earth, but very fast ones can arrive in under a day. And as they penetrate the Earth's ionosphere the charged particles and magnetic forces emit radiation across

the electromagnetic spectrum, from low-energy radio waves through to high-energy gamma rays,

NASA launched the Solar Dynamics Observatory satellite in February to gain a better understanding of how the sun behaves and why and also to keep a closer watch on space weather. About 70,000 each day will be radioed back to Earth during the expected five year life of this on-orbit bird. (Adapted from the Japan Times)

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WORLD BEAT - UK: WWII DOCUMENTS TO BE PUT ON LINE

Millions of documents stored at the United Kingdom's World War II code-breaking center, Bletchley Park, will soon be made available online. This after Hewlett-Packard donates a number of scanners to the center in Milton Keynes so volunteers can begin the task which is expected to take over 3 years. The entire story is available on-line at tinyurl.com/3x2cfz6 (BBC)

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WORLD BEAT - AUSTRALIA: ICOM DONATES D-STAR REPEATER TO CELEBRATE WIA AT 100

Icom Australia has donated a new D-Star repeater to the Wireless Institute of Australia for installation in the Canberra area. The Canberra Region Amateur Radio Club will be the D-Star group responsible for the installation and operations of repeater on behalf of the WIA.

The repeater will be operational on 2 meters using Port C and have the callsign of VK1RWN. The timeframe for the installation and operations of the new D-Star system is yet to be determined.

The announcement of this donation was made by Takashi Aoki, Manager of Icom Australia at the official WIA Centenary dinner on Saturday night, June 5th. This donation from Icom was made to celebrate 100 Years of the WIA. (WIA News)

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DX

In DX, word that a W0SD, W0OE, N0QJM, W7XU will be operating portable C5 Gambia from June 25th to July 6th. Their main focus will be 6 meters will focus on 6 meters with plans to remain on 50.103 Mhz. They will have an amplifier coupled to a large yagi from a seaside location and will have a breakable beacon. QSL as directed on the air.

G4AHK, is now active as 7Q7BJ from Malawi and will be on the air until June 22nd. Listen out for him on 160, 80 and 40 and meters. QSL via his home callsign.

DL1DA will be active stroke FJ from Saint Barthelemy Island between June 8th and the 20th. Activity will mostly be on 40 through 6 meters using CW and RTTY. QSL him also via his home callsign.

Lastly, N2NL, will be returning to Guam on June 17th, and will be there for three years. He will be active outside of contests as KH2 stroke N2NL and during contests as NH2T. QSL via Logbook of the World or via W2YC.

(Above from various DX news sources)

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THAT FINAL ITEM: US CONGRESS CALLS SOUTH AFRICA HAM WHO SPOTTED SPY PLANE
A THREAT TO SECURITY

And finally this rather bizarre follow-up to our story two weeks ago concerning a South African ham who spotted a super secret United States military spy plane as it circles the globe. Now a local newspaper is deeming him to be a threat to the security of the United States because of his accomplishment and those of his friends who helped him. Amateur Radio Newsline's Bill Pasternak, WA6ITF, has the rest of this rather unique tale:

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South African retiree and amateur astronomer Greg Roberts, ZS1BI, says that he and his group have been labeled a threat to US national security. This after Roberts with the aid of other amateur astronomers world-wide seem to have successfully located and recorded images of the US Air Force secret X-37B space craft on-orbit.

The South Africa Sunday Times reports that with the help of a group of amateur astronomers from around the world, including a gasoline station attendant in Canada, that Roberts calculated that the top-secret spacecraft took about 92 minutes to orbit earth. Also that it flies over hot spots such as Afghanistan, Pakistan, Iraq and Korea.

The discovery of the craft, which is 8.9m long and travels at 8km a second, earned Roberts a mention in the New York Times, on the BBC and in several science publications. As a result, Roberts says that he and his group had been labeled a threat to national security by the U-S Congress. He and his wife now joke that that the Men in Black will walk up our driveway some day.

But not everyone looks at Roberts work in that way. Dr. Ed Elson, is a researcher at the University of Cape Town's department of astronomy. He lauded Roberts and the group of amateur astronomers. He says that the fact that they managed to find the X-37B and are now tracking the craft is certainly quite an admirable feat, especially from an observational astronomer's perspective.

Dr. Elson added that Roberts and his team certainly have a very respectable track record, claiming to be tracking almost every classified object that has been launched in the past five years. Because of this, he sees no real reason to refute their claim of having found the X37-B.

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For his part ZS1BI says that his group of amateur astronomers feel that they are doing a service to the public by providing to them what they really need to know. He added that they do not consider themselves a

threat to security. He notes that anyone else can do exactly the same thing. You can read the entire South Africa Sunday Times story on line at tinyurl.com/2cwv7hv (SARL)

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NEWSCAST CLOSE

With thanks to Alan Labs, AMSAT, the ARRL, the CGC Communicator, CQ Magazine, the FCC, the Ohio Penn DX Bulletin, Radio Netherlands, Rain, the RSGB, the Southgate News and Australia's W-I-A News, that's all from the Amateur Radio Newsline(tm). Our e-mail address is newsline@arnewsline.org. More information is available at Amateur Radio Newsline's(tm) only official website located at www.arnewsline.org. You can also write to us or support us at Amateur Radio Newsline(tm), 28197 Robin Avenue, Santa Clarita California, 91350

For now, with Bill Pasternak, WA6ITF, at the editors desk, I'm Don Wilbanks, AE5DW, saying 73 and we thank you for listening.

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